

---

## Induced pluripotent stem cells (iPSC) and neurologic disease modeling: Progress and Promises.

<b>Journal:</b>	Hum Mol Genet
<b>Publication Year:</b>	2011
<b>Authors:</b>	M C Marchetto, K J Brennand, L Boyer, F H Gage
<b>PubMed link:</b>	21828073
<b>Funding Grants:</b>	Molecular and Cellular Transitions from ES Cells to Mature Functioning Human Neurons, Development of Induced Pluripotent Stem Cells for Modeling Human Disease, Training in the Biology of Human Embryonic Stem Cells and Emerging Technologies II

### Public Summary:

The systematic generation of neurons from patients with neurological disorders can provide important insights into disease pathology, progression and mechanism. This review will discuss recent progress in modeling neurodegenerative and neurodevelopmental diseases using induced pluripotent stem cells (iPSCs) and highlight some of the current challenges in the field. Combined with other technologies previously used to study brain disease, iPSC modeling has the promise to influence modern medicine on several fronts: early diagnosis, drug development and effective treatment.

### Scientific Abstract:

The systematic generation of neurons from patients with neurological disorders can provide important insights into disease pathology, progression and mechanism. This review will discuss recent progress in modeling neurodegenerative and neurodevelopmental diseases using induced pluripotent stem cells (iPSCs) and highlight some of the current challenges in the field. Combined with other technologies previously used to study brain disease, iPSC modeling has the promise to influence modern medicine on several fronts: early diagnosis, drug development and effective treatment.

---

**Source URL:** <https://www.cirm.ca.gov/about-cirm/publications/induced-pluripotent-stem-cells-ipsc-and-neurologic-disease-modeling-progress>